

CASES OF TUBERCULOSIS OF THE GENITO-URINARY TRACT, WITH REMARKS.*

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Case 3.—C. N., aged 21, American, single, clerk. Health good until an attack of la grippe in the early part of 1895, after which he began to suffer from frequent micturition; urine tinged with blood at times. Pain in penis and also in neck of bladder, which grew gradually worse. His bladder was washed out, but his suffering increased so much that this process was soon omitted, and when he came to me, June 27, 1895, there has been no local treatment for some time. He was then passing 1520 cc. of urine in 24 hours, 20 voidings. It was reddish, turbid, strong, ammoniacal odor, alkaline, reaction sp. gr. 1017; trace of albumen; no sugar; contained 18.24 gms. of urea. Sediment, copious, reddish, viscid. Crystals of triple phosphate numerous. A few pavement cells, pus and blood corpuscles; no casts. Examination for tubercle bacilli negative. The symptoms were so strongly indicative of stone that he was searched with negative results. The unusual amount of disturbance which followed led to the suspicion of tuberculosis of the genito-urinary tract, in spite of the failure to find the bacillus. All local interference was therefore avoided until June 30, 1897, when, failing to find the tubercle bacillus in many examinations, I again searched him for stone, with negative results. He had lowered the number of daily voidings to eight, but they were always attended with pain, and after the examination became more frequent for nearly a month. On October 9, 1897, he had a sharp attack of pain in the left kidney, easily controlled by an anodyne, and he noted bright blood in the urine the following morning. On January 18, 1898, he had a bad spell, during which he had to pass his urine as often as 20 times in 24 hours. The tubercle bacilli were now found, and since that time it has always been easy to demonstrate their presence. Under cod liver oil, tonics and general hygienic measures, he has improved somewhat, gained a little in strength, has been able to work, and is apparently steadily gaining. On April 24, 1898, he reports by letter as not suffering so much, but passing urine hourly during the daytime and five times at night. At no time as yet has there been any lesion of the prostate gland, testes or cord.

Examination, April 4, 1903 (eight years after first attack): In excellent health. Married eleven months since. Sexually normal. Voids urine six to seven times daily. Promised to send urine for analysis and did it. His urine was normal in quantity, devoid of noxious elements, no bacilli.

Case 4.—A. D. K., American, aged 50 (?), attorney, widower. Came under observation May 8, 1896, with epididymitis of the right side; left subsequently similarly involved. Attributed his attack to muscular strain. Had suffered years ago from urethritis, followed by obstinate gleet, from which he at length recovered. General health good. Family history of tuberculosis on mother's side. *No frequency of micturition.* The diagnosis of tuberculous epididymitis was made from the peculiar woody masses of deposit that made up the indurations in the organ. Examination of urine 1440 cc. in 24 hours. Voided 4 times. Bright yellow, clear, translucent, normal odor, acid, sp. gr. 1017. No albumen nor sugar. 21.6 gms. of urea. Copious, white cloud of sediment. No crystals. A few pavement cells. A few corpuscles. No casts. No tubercle bacilli. With but little pain, the case went on to suppuration, attended with moderate hydrocele, and the left epididymis pursued a similar

course. In the discharge from the abscess tubercle bacilli were repeatedly found. It was more than a year before the last sinus closed. The patient attended to business all the time.

Examination, March 25, 1898: In good health. Tubercular masses small, but plainly perceptible to the touch in each epididymis. Sexual appetite unchanged and power not impaired, but thinks the discharge on emission more scanty than formerly.

Examination, April 15, 1903. Still in excellent health. Has been married two years. Sexually all right, but no children.

Case 5.—D. H. B., aged 29, American, married, laborer. General health poor for several years. Gonorrhea 8 years ago. Perineal section for stricture and urethral fistula in 1888; healed promptly. In November, 1894, he began to suffer from frequent micturition. His bladder was washed out three times, when he became so much worse that that mode of treatment was abandoned. About two months before coming to me the fistula reopened in the perineum. Saw him first June 25, 1895. He was thin and worn. Voided urine with great pain and at short intervals, 20 times during 24 hours; the tubercle bacilli were present in great numbers. There was a tight stricture of the deep urethra just anterior to the internal opening of the fistula. So far as could be made out, the lungs were not involved. Perineal section was made on June 26th, and healing was fairly prompt. He put on flesh, gained strength, and returned to the country July 30, 1895, and went to work. He came back to me September 22, 1895, in very bad condition. Micturition frequent and painful; urine loaded with bacilli. By the end of October the right kidney could be felt enlarged and tender. On account of the great pain in the kidney, operation was considered; but, the suffering lessening, it was not done, as it was plainly evident that a fatal termination was near at hand. He sank progressively and died January 31, 1896.

Autopsy: Emaciation extreme. Right lung stuffed with crude tubercles; left lung, considerable amount of tubercular deposit. Heart normal. Bowels matted together by inflammation of numerous and extensive tubercular foci. Right kidney three times natural size, firmly adherent to adjacent organs, and riddled by tuberculous abscesses. Ureter dilated and tubercular. Left kidney normal. Bladder wall soft and very easily torn. Entire mucus coat a pultaceous mass of tubercular degeneration. Prostate normal in size, burrowed by sinuses.

Case 6.—R. M., aged 16. This boy had excellent health up to a few months ago, when, after a long ride in the drenching rain, he began to pass water frequently. He lived in the country and his family physician tried simple medicinal treatment, without success. He was brought to me April 4, 1901. He was passing urine thirty times in twenty-four hours; it was reddish, turbid, strong odor, and sp. gr. 10.11; it contained .02 albumen and 14.20 gms. urea; crystal of oxalate of lime, blood and pus corpuscles plentiful. There was always pain in passing water, for the most part in the glans penis, with desire to stool, and he was subject to paroxysms of great severity at irregular intervals. He was in fair physical condition and had no other ailment. He remained under my care three months. I suspected tuberculosis at once and caused repeated examinations to be made; all were negative. The pain resembling the pain of stone, and not finding bacilli after a ten days' search, I decided to pass a searcher; this I did under cocaine. The urethra was very sensitive and would only admit No. 10. F. The bladder would only hold 3 drachms. I found nothing in the bladder, but just as the instrument left the neck I

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had an elusive sense of touching a small stone. This decided me to have recourse to a gradual dilation, in order to get room for a small lithotrite. I accomplished this by gently passing sounds under cocaine twice weekly, seven times; then a thorough search satisfied me there was no stone. I was now sure that the case was tuberculosis, although I never found the bacilli. I frankly explained my views to his parents, and they took him home. I felt at that time that my instrumentation had been unwise and that his sufferings had been increased thereby. Some time after leaving my care he was taken to a surgeon, who instituted a course of lavage with injections of argenti nitras; this was not continued very long and he had no other local treatment. About a year after his attack, after great suffering, he died. Before his death his scrotal contents became distinctly tubercular.

In closing, permit me to present two cases which I saw in consultation—one with Dr. Ray Lyman Wilbur, the other with Dr. Herbert C. Moffitt. These gentlemen have kindly sent the following reports:

Case, G. M. R.—Dr. Ray Lyman Wilbur: "Patient strong, well-nourished man. Had an irritable bladder from boyhood. Operation for appendicitis in 1898. In winter of 1900 began to have trouble with bladder, frequent urination, pain, with pus and albumen in the urine. Greatly relieved by mild urinary antiseptics. First saw him in March, 1901. Symptoms all mild and all referable to the bladder. Pus and albumen in the urine, but no casts. He was treated with various diuretics and urinary antiseptics and hygienic measures, with indifferent success. In the summer of 1901 he was in a San Francisco hospital, and was there treated with argenti nitras injections. Repeated examinations revealed no tubercle bacilli. A cystoscopic examination, made May 24, 1901, showed several vesical ulcers. Twice during the summer he had a complete suppression of the urine for 24 hours. In August, 1901, an epididymitis appeared on the left side, and it was taken as confirmatory evidence of genito-urinary tuberculosis, although no bacilli had been found, and all local treatment was stopped.

"September 28, 1901. Consultation with Dr. Chismore and Dr. Krotoszyner. Palliative treatment and strict injunction against surgical procedures.

"In December, 1901, patient went to Baltimore, where he had many relatives, partly for a change and partly for treatment. At that time he was urinating frequently, but had not lost weight.

"On January 4, 1902, numerous tubercle bacilli having appeared in the urine, and there having been an increase in the size of the epididymis, he was operated upon as follows: An epididymectomy on the left side and a castration on the right. The incisions were made high up in the groin, and the vas deferens freed up to the internal ring. Before closing the wound the vas deferens was brought out through the skin at the upper angle of the wound and there left to drain. The object of this was to allow the escape of as much as possible of the tuberculous matter from the vesicles as might flow through the vasa deferentia, and thus divert as much of it as possible from the urethra and bladder. The epididymes were partially involved on both sides, but both testicles were free from disease. The castration was done largely for its atrophying effect.

"The patient rallied from the operation and was better for a short time. Then he began to get worse; the urination became more frequent; there was a decrease in weight and much pain. In March, 1902, he was still fairly strong and vigorous, but was getting

gradually worse. In May, 1902, the frequent urination and the presence of constant pain led to a second operation for suprapubic drainage of the bladder. A small incision was made in the median line of abdomen and the wall of the bladder stitched to it. Through this opening the urine was drawn and the bladder was irrigated. The urine was now heavily charged with albumen, mucus and pus, but had no casts in it. The symptoms were much relieved by the operation, but the patient sank into a septic state, and after two months of fever, vomiting, hiccoughs, etc., died in the latter part of July, 1902.

"An autopsy showed a complete infection of the genito-urinary tract, with almost complete atrophy of one kidney, its place being taken by a sac of pus. There were tubercular foci in the lungs, liver and elsewhere in the body."

Case, Miss C.—Dr. Herbert C. Moffitt: "Saw her first February 24, 1900. Her age was then 24. Never any history of tuberculosis in family. She was absolutely well until six years previously, when there was some pain and difficulty in passing urine. She was at that time in Europe and was said to have malaria. In October, 1898, treated with Dr. Winslow Anderson for some obstinate acne, and had some local bladder treatment for a time, but this was discontinued on account of pain. In January, 1899, inflammation of the left mastoid, but no operation. April 20, 1899, severe bladder pain, called acute cystitis by Dr. Eastman of Berkeley. Since then she has had considerable pain over the bladder and down the left thigh. Paroxysms of pain in the inner and front of the left thigh extremely severe; worse on standing or on exercising. Examined for stone of bladder with negative result, with quite a severe hemorrhage afterward. Bladder was then washed for some time and said to be all right locally, but washing was followed by more pain. An operation was contemplated for resection of the pudic nerve for some reason or other, but was postponed. Of late large hemorrhages with clots. Pain very severe in March, 1900. Examined at Lane Hospital; great irritation of bladder; much pus in urine; very little blood; no evidence of kidney disease, and, after some trials, tubercle bacilli found in the urine by stain, confirmed by animal experiment.

"Attempt to separate urine from either kidney by the Harris segregator gave no result. Ulcers were seen in bladder. Improved somewhat under methyl blue, but some months later relapsed and was seen by Drs. de Vecchi and Chismore, who suggested no operative interference, but hygienic treatment. Since this time she has led an open-air life. The only drugs used have been cod liver oil and occasionally methyl blue. There have been two distinct relapses with hemorrhages and considerable pain, but for long periods she has been able to get around as usual, and has then been at normal weight and free from all but very slight bladder irritation. At present she is in Los Gatos with return of bladder pain and irritation, but is under no treatment beyond cod liver oil.

"Additional history, gotten of late, developed the fact that she remembers some indefinite bladder trouble as far back as childhood. Had whooping-cough at four years of age, and a cough two years afterward. Later an abscess in the left ear. Examination of late years always failed to show any lung involvement."

The last session of the University of Pennsylvania appropriated \$25,000 to equip a laboratory for X-ray research and Finsen's light apparatus at the Hospital of the University of Pennsylvania. Dr. Henry K. Hancock has charge of the work.